

# CBD HEMP OIL FOR HEALTH



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# Disclaimer

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## Disclaimer

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Due to changes in local, state and federal laws, the legal status of marijuana is continually in flux. *Always review regulations before pursuing the sale or purchase of marijuana products.*

## Introduction

As scientists and doctors continue studying the benefits of medical cannabis, we're discovering that growing cannabis for various levels of compounds, known as cannabinoids, can create medicine for the targeted treatment of certain ailments.

Medical marijuana growers as well as medical marijuana testers, are working hard to tailor their marijuana strains to hold stronger impacts towards the treatment of cancer, epilepsy, multiple sclerosis and much more. But what are these cannabinoids and what do they do? Let's explore.



## What is CBD Hemp Oil?

Extracted from the hardy stalks, flowers, leaves, or a combination of different parts of the cannabis plant, hemp (industrial), cannabidiol (CBD) hemp oil or extract is a natural concentrate that is high in CBD, one of roughly 85 cannabinoids that have been found in the cannabis plant. This is a CBD hemp product that should not be confused with hemp seed oil or the organic hemp oil you typically find on the shelf in a grocery store. There are certain facts or pertinent information that every beginner should know about CBD hemp extract before attempting to employ it for medicinal or therapeutic purposes.

The Hemp Industries Association (HIA) maintains that [CBD hemp oil](#) is "produced either directly from cannabis flowers that are upwards of 15% CBD (150,000 ppm), or indirectly as a co-product of the flowers and leaves that are mixed in with the stalks during hemp stalk processing for fiber. Under Section 7606 of the 2014 federal Farm Bill, cannabis plants, industrial hemp included, containing high CBD, with less than 0.3% THC in their flowering tops is permissible in industrial hemp CBD products.



## **Cannabinoids**

The therapeutic components of the marijuana plant are held in the plant's trichomes, or resinous glands. These trichomes exist on the surface of the plant, with higher densities on female flowers. Medically active chemicals exist in these resinous glands called cannabinoids or phytocannabinoids. The cannabis plant contains over 80 of these cannabinoids.

The most well-known of these cannabinoids in marijuana culture today is the delta-9-tetrahydrocannabinol compound, also known as THC. THC's psychoactive effect is what makes cannabis popular for recreational use. But it is marijuana's second highest cannabinoid content – **CBD**, also known as **cannabidiol** – that is making waves in the medical industry today.

### **What is Cannabidiol?**

*Cannabidiol* or CBD is marijuana's second most potent phytochemical found in female cannabis plants. It is among marijuana's 60 known healing compounds. Similar to THC, this cannabinoid also attaches to receptors in your body's cells. The main study of CBD is how it works to create a more enhanced endocannabinoid system in the body. The endocannabinoid system, or ECS, is a group of cannabinoid receptors located throughout the human body's brain and central nervous system involved in the physiological processes of sensations such as pain, mood, appetite and memory.

CBD is often overlooked by medical marijuana patients and medical professionals alike because of marijuana's well-known psychedelic effects – derived from high THC contents. Due to marijuana growth in popularity medically, CBD studies are making a comeback. Researchers have taken a special interest into CBD as a form of treatment for a variety of medical conditions.

### **CBD vs. THC – What's the difference?**

CBD is closely related to THC. Both of these compounds make up two of 85+ cannabinoids located in the cannabis plant. CBD has a very different effect on your body compared to THC, primarily because CBD is non-psychoactive. This means that you will not have a mind-altering experience when using CBD, as you

might from in-taking THC. Although you will find no states of euphoria when using CBD, it still has a strong and lasting impact on the body.

Unlike TCH, CBD does not bind to CB1 and CB2 cannabinoid receptors in your cells. Another way of thinking about this is that the molecules do not align; therefore it has a different type of effect. CBD is actually considered a negative modulator for THC, meaning that it can cancel out many of the psychedelic or “stoned” effects of THC. CBD can actually obstruct some of the CB1 receptors in the brain, which prevents THC from having its usual impact.

### **What makes CBD so unique?**

CBD or cannabidiol does not trigger the CB1 and CB2 receptors in the body, so how exactly does this work? Instead, CBD activates other receptors in the body, such as *vanilloid*, *serotonin*, and *adenosine*. By activating these other types of receptors, cannabidiol plays a role in mediating pain perception, inflammation and the body’s temperature.

For example, the activation of adenosine receptors through CBD, give the body anti-inflammatory and anti-anxiety effects. These receptors are also involved with the body’s release of neurotransmitters, glutamate and dopamine. Glutamate helps mediate signals involved with cognition, learning and memory while dopamine is involved with motivation, motor control and reward mechanisms.

High concentrations of cannabidiol have also been known to activate the serotonin 5-HT1A receptors, exerting a major role as an anti-depressant. Serotonin receptors are involved with a variety of processes from nausea, appetite, anxiety, pain perception and addition mechanisms.

One of the most impressive researches on CBD show that cannabidiol is involved with blocking CPR55 signals, which decreases cancer cell proliferation and bone reabsorption. CPR55 is most present inside the brain and is linked with the modulation of blood pressure, bone density and cancer cell proliferation.

One of the reasons that CBD is as effective as it is, is its unique ability to completely cut off certain fatty-acids that destroy the cannabinoid anandamide present in the human body. Anandamide controls various feelings, experiences and emotions such as appetite, pleasure, pain and sleep. Since the amount of anandamide in the body will remain intact, CBD works to enhance other

chemicals that are useful to the body and the body's fight against certain conditions.



## Benefits of CBD

Although the many benefits of cannabidiol is still being studied today, it's no secret that CBD rich plants and CBD oil has been proven to help with a multitude of chronic medical conditions.



Here's an overview of just some of the benefits of CBD we know of today.

1. **Pain and Inflammation Relief** – Among the various benefits of CBD, natural pain relief is at the top of the list. Research suggests that cannabidiol is useful for pain modulation because of role in inhibiting neuronal transmissions in pain pathways without causing analgesic tolerance.
2. **Reduces Anxiety** – CBD has been known to reduce anxiety in patients that have social anxiety, panic, obsessive compulsive and post-traumatic stress

disorders with an applicable focus on cognitive impairment and speech discomfort.

3. **Antipsychotic Effects** – Research shows the CBD has a similar pharmacological profile to atypical antipsychotic drugs. This means that CBD is known to prevent psychosis effects in conditions such as schizophrenia, while maintaining a remarkable high safety profile.
4. **Cancer Fighting Radicals** – Recent scientific studies have demonstrative CBD's benefits in possessive, pro-apoptotic and anti-proliferative effects that inhibit cancer invasion, adhesion and cell migration. CBD has been known to selectively inhibit growth of breast tumors with less potency to non-cancer cells. Furthermore, studies reveal that CBD is particularly a non-toxic compound that can be used for prolonged treatment.
5. **Nausea Relief** – For centuries, cannabis has been used for the suppression of vomiting and nausea. Research reveals that both CBD and THC assist with nausea relief.
6. **Lowers Incidence of Diabetes** – A study in 2006 found that CBD significantly reduced the incidence of diabetes in animals from 86% to 30%. Benefits also included reduction of pro-inflammatory cytokines and plasma levels.
7. **Seizure and Neurological Treatments** – Recent studies at Stanford University show that an experimental treatment of cannabidiol enriched cannabis in children with seizures exhibited astounding positive conditional effects. Of the nineteen children study, all of which were diagnosed with epilepsy, 84% of parents reported a reduction in seizure frequency. Of this group 11% reported complete freedom of seizures, 42% reported more than an 8-% reduction in seizure frequency, and 32% reported a 25-60% reduction. Additional benefits included improved sleep, better mood and increased alertness.
8. **Promotes Cardiovascular Health** – CBD has recently been reported to protect against vascular damage that can be a result of a glucose-rich

environment, induction of type 2 diabetes or inflammation. CBD has also provided reduction to vascular hyper permeability associated with these environments.

New understanding of cannabis and its effects on the biological systems in the human body has provided profound opportunities in managing, advancing and even altering disease processes in a plethora of illnesses.

What's one of the best things about CBD? Although a state-approved prescription and license is required to access CBD in medical marijuana plants, there is no need for a doctor's approval to get access to some CBD products manufactured from hemp plants.

## How is CBD Hemp Oil Made?

CBD hemp oil is increasing in popularity as an alternative to marijuana without the intense side effects of smoking herb that is high in THC. But what is CBD hemp oil and how is it made?



CBD or cannabidiol is one of the 85+ compounds that have been discovered in the cannabis plant. CBD oil is the result of the extraction of CBD oil from either marijuana or hemp types of cannabis plant. This can be taken and used for a variety of benefits.

Understanding the different types of CBD oil, the way that it's made, different uses and effects that it has on the body will help you make good decisions on what types of CBD oil might be beneficial for you.

## Safe and effective ways to produce CBD-rich Cannabis Oil

CBD oil can be extracted from the seeds, stalks, leaves and bud of the cannabis plant. In order to extract CBD-rich oil, you must start with a CBD rich plant. There are a few different ways to go about extracting CBD oil from cannabis plants, some methods are safer and more favorable than others. CBD oil made with toxic solvents like hexane and butane leave extremely unsafe residues that is detrimental to the immune system and impedes healing.

### Extraction Methods

CBD oil can be safely extracted utilizing three different methods.

1. **CO2 Method** – The CO2 method is one of the most popularly used methods of extracting CBD in its purest form. This method involves pushing carbon dioxide through the plant at extremely low temperatures and high pressures. This method preserves the purity of the medicinal oil. This process is the safest and best way to cleanly extract CBD, leaving no residues and removing harmful substances like chlorophyll. Although this method requires expensive equipment and is more expensive than other methods, it yields a higher quality and desirability in effectiveness and taste.
2. **Ethanol Method** – CBD oil can also be extracted using quality grade alcohol that is high in grains. This method is primarily used to create high quality cannabis oil appropriate for vaporizers and other products. But this method often destroys plant waxes and other sought-after natural oils, making it much less favorable than other methods.
3. **Oil Method** – The Oil method is growing in popularity across the CBD oil industry. This involves the extraction of CBD oil utilizing a carrier oil, such as extra virgin olive oil. This method is reported by scientists such as Dr. Arno Hazekamp, director of phytochemical research at Bedrocan, as safe and inexpensive. CBD enthusiasts enjoy this method because of the additional benefits the carrier oil provides. It is also considered safe and without unwanted or negative residues. However, cannabis-infused olive oil is considered perishable and should always be stored in cool dark places, such as a kitchen cabinet or cupboard.

## CBD Oil from Hemp vs Medical Marijuana

CBD oil is found in a variety of cannabis plants, the most popular being hemp and marijuana. Both hemp and marijuana derive from the Cannabis Sativa L. strains. It is possible to extract this oil from both hemp and marijuana plants. The primary difference between these two, are the amounts of CBD to THC found in the oil from each one of these plants, and how patients benefit.



### CBD Hemp Oil

CBD hemp oil derives from the seeds of the hemp plant. The hemp plant is bred to hold the highest concentrations of CBD and the lowest concentrations of THC, contrary to CBD oil made from medical marijuana, which can have varying amounts of THC. When you purchase CBD hemp oil rather over oil extracted from marijuana, the result is an oil with negligible amounts of THC that is high in CBD. This means that CBD hemp oil is incapable of causing psychoactive effects derived from high THC content. For this reason, CBD hemp oil can be sold in stores and purchased without a medical marijuana card or a doctor's prescription.

The benefits to using hemp plants over marijuana plants to extract oil rich in CBD, is that hemp plants can be used to produce a variety of other products such as clothing and paper products. CBD is actually a by-product of this manufacturing process. Producing CBD oil from hemp during this process, involves recycling and reducing what would otherwise be waste.

### **How Can CBD Oil Benefit You?**

CBD is a special type of cannabinoid that is beneficial to the human body. Our body contains special types of CBD receptors in places like our immune system, organs and brain. Cannabinoids bind and interact with these receptors and have influence over our functions or abilities of these different sites.

Scientists have discovered that CBD interacts with these receptors in such a way that benefits our body or has beneficial influences. Research has found that adding CBD into your personal diet can offer positive influences on general well-being and health.

## Advantages of Using CBD Hemp Oil



- CBD hemp oil contains very minimal levels of THC (between [0.3%-1.5%](#)), which is less than what is needed to trigger a psychoactive response when consumed. In other words, it does not cause a “high” in users.
- CBD hemp oil effects have been proven in its medicinal capacity, treating such health conditions as inflammation, epilepsy, depressive disorders, neurodegenerative diseases, cancer, mental disorders, and neuropathic pain.
- It is easier to access cannabis hemp oil because the extract is produced from industrial hemp, which is legal at the federal level and throughout allowable states.
- Evidence of very few side effects makes it a safe alternative compared to many conventional medications.



## Conclusion

CBD hemp oil can be a positive addition to your daily health regime. Known for its rich Vitamin E content and increased protection from cancer-causing radicals, it's easy to see why people enjoy hemp oil in their products or even cooking. The most important thing to keep in mind, is knowing your sources.

If you are not producing your CBD hemp oil at home, make sure to ask questions about how and where your CBD oil is made and make sure it's a process that you are comfortable with.

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